

Remarks/Arguments

Reconsideration of the above-identified application in view of the present amendment is respectfully requested. By the present amendment claims 11 and 23 have been amended. Claims 14 and 30 have been cancelled. Claim 31 has been added.

Claim Rejections under 35 U.S.C. §102

Claims 11, 14-18 and 20-22 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 1,789,060 to Weisenbach (hereafter "Weisenbach"). Claim 14 has been cancelled and thus the rejection of claim 14 is moot. It is respectfully submitted that, as amended, claim 11 patentably defines over Weisenbach and is therefore allowable.

Amended claim 11 recites that one or more one-piece fixation elements are received in a bone structure and in a polyethylene chassis. The polyethylene chassis has an elasticity giving a locking effect by friction on the fixation elements in such a way that the fixation elements are locked by friction regarding movement in axial, rotational and angular directions.

Weisenbach does not teach one-piece fixation elements received in bone and in a polyethylene chassis which has an elasticity giving a locking effect by friction on the fixation elements. Weisenbach teaches anchor screws 8 that extend through clamp members 12, 15 and are screwed into holes 7 in bone (Fig. 1). The clamp members 12, 15 are rigidly secured over the screws 8 by means of and between nuts 26 which thread on the anchor screws 8 (lines 88-94 and Fig. 1). That is, the screws 8 are fixed relative to the clamp members 12, 15 by the nuts 26 providing a

clamping force to the top and bottom of each clamp member 12, 15 while being threaded to each screw 8. The screws 8 are not locked relative to the clamp members 12, 15 because the clamp members 12, 15 impart friction on the screws 8. In fact, there appears to be no actual contact between the screws 8 and the clamping members 12, 15. Thus, there can be no friction imparted by the clamp members 12, 15 to the screws 8. Since the screws 8 are secured to the bone and the nuts 26 clamp upon the clamp members 12, 15, Weisenbach does not teach one-piece fixation elements received in both bone and in a chassis which has an elasticity giving a locking effect by friction on the fixation elements.

Accordingly, it is respectfully submitted that claim 11 patentably defines over Weisenbach and is therefore allowable.

Claims 15-18, 20-22 and 31 depend from claim 11 and are allowable for the same reasons as claim 11 and for the specific limitations recited therein.

Claim Rejections under 35 U.S.C. §103

Claims 13, 19 and 23-30 were rejected under 35 U.S.C. §103(a) as being unpatentable over Weisenbach. Claims 13 and 19 depend on claim 11 and are allowable for at least the same reasons as claim 11 and for the specific limitations recited therein. Claim 30 was cancelled and therefore the rejection of claim 30 is moot.

Amended claim 23 recites that a one-piece fixation element extends through a chassis and frictionally engages the chassis to prevent axial, rotational and angular movement of the fixation element relative to the chassis. Weisenbach does not teach this structure.

Weisenbach teaches that clamp members 12, 15 are anchored with respect to a bone via anchor screws 8 screwed into holes 7 in the base (lines 59-64 and Fig. 1). Slots 13 and 16 of the clamp members 12, 15 are adapted to slide over the anchor screws 8. The clamp members 12, 15 are rigidly secured over the screws 8 by means of and between nuts 26 which thread on the anchor screws 8 (lines 88-94 and Fig. 1). Thus, the screws 8 extend through the clamp members 12, 15 while the nuts 26 engage the clamp members 12, 15 to secure the screws 8 relative to the clamp members 12, 15. The screws 8 do not contact or engage the clamp members 12, 15 in any way. Therefore, Weisenbach does not teach a one-piece fixation element that extends through a chassis and frictionally engages the chassis to prevent movement of the fixation elements relative to the chassis.

Furthermore, it would not have been obvious to one having ordinary skill in the art to modify the device of Weisenbach to teach the subject matter of claim 23 because such a modification would produce undesirable results. In particular, if the screws 8 and the nuts 26 were manufactured as a one-piece unit, it would be impossible to fasten the screws 8 relative to either of the clamp members 12, 15. The device of Weisenbach relies on the releasable connection between the screws 8 and the nuts 26 to secure the clamp members 12, 15 to the screws and properly position the clamp members relative to the screws. By manufacturing the screws 8 and nuts 26 as a single unit, the clamp members 12, 15 could not be slid over the screws 8, nor could the nuts 26 be tightened to provide the clamping force necessary to secure the clamp members 12, 15 relative to the screws 8.

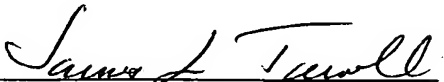
Additionally, Weisenbach teaches that once the screws 8 are fixed within the bone 4, 5, the slots 13, 16 allow the clamp members 12, 15 to be vertically and horizontally located before tightening the nuts 26 to secure the clamp members 12, 15 to the screws 8. Thus, the practitioner can set the screws 8 at desired locations and then use the tolerance provided by the slots to position the clamp members 12, 15 along the screws 8. If the screws 8 were modified to frictionally engage the clamp members 12, 15, there would be no ability to horizontally locate the clamp members 12, 15. Since one having ordinary skill would consider positioning of the clamp members 12, 15 critical to proper bone healing, the loss of horizontal positioning would be undesirable. Accordingly, it would not have been obvious to one skilled in the art to modify Weisenbach to teach the subject matter of claim 23. For these reasons, it is respectfully submitted that claim 23 patentably defines over Weisenbach and is therefore allowable.

Claims 24-29 depend from claim 23 and are allowable for at least the same reasons as claim 23 and for the specific limitations recited therein.

In view of the foregoing, it is respectfully submitted that the above-identified application is in condition for allowance, and allowance of the above-identified application is respectfully requested.

Please charge any deficiency or credit any overpayment in the fees for this amendment to our Deposit Account No. 20-0090.

Respectfully submitted,


James L. Tarolli
Reg. No. 36,029

TAROLLI, SUNDHEIM, COVELL,
& TUMMINO L.L.P.
1300 East Ninth Street, Suite 1700
Cleveland, Ohio 44114-1400
Phone: (216) 621-2234
Fax: (216) 621-4072
Customer No.: 26,294